

REMARKS

Subsequent to entry of the foregoing amendments, claims 1 and 5-23 are currently pending in this application. Claims 22 and 23 have been newly added, claims 11-20 have been withdrawn and claims 1 and 5-10 have been examined on the merits.

Claim Rejections - 35 U.S.C. §103

A) Claims 1, 5, 10 and 21

Claims 1, 5, 10 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kijima, *et al.* (U.S. Patent No. 6,259,500) in view of Murade, *et al.* (U.S. Patent No. 6,433,841). Applicant respectfully traverses this rejection.

Claim 1 recites, *inter alia*, a depression formed on a surface of a first or a second substrate that serves as a buffer space for receiving extra liquid crystal. The depression is located in a second part of a liquid-crystal layer, corresponding to a non-display region. The Examiner acknowledges that Kijima fails to disclose a depression as claimed, and attempts to correct this deficiency with Murade. However, the Examiner's motivation for modifying Kijima with Murade is deficient and, even if Kijima were modified with Murade, the combination would still be deficient with regard to claim 1.

The Examiner asserts that Fig. 3 of Murade shows a depression that creates a buffer space for extra liquid crystal material. The Examiner includes a reproduction of Fig. 3 in the Office

This diagram shows a cross-sectional view of a liquid crystal (LC) device. The device is sandwiched between two substrates, 10 and 20. The upper substrate 20 has a top layer 21 and a buffer space 22 for extra LC material. The lower substrate 10 has a bottom layer 11 and a buffer space 12. A central region 10a contains a liquid crystal layer 11a. The device is illuminated by incident light from the top and feedback light from the bottom. A depression is shown on the lower substrate 10. Labels include 1, 2, 3a, 3b, 4, 5, 6, 7, 8, 9a, 10, 11, 11a, 12, 16, 20, 21, 22, 23, 30, 70, and 80.

Fig. 3

As motivation for modifying Kijima with Murade, the Examiner cites several passages of Murade that teach the advantages of the depression. However, the Examiner provides no specific motivation or citation for modifying Kijima to include the alleged Murade buffer space. The Examiner's reasoning appears to be that the Murade depression and buffer space are inter-related, such that the depression creates the buffer space. Therefore, the Examiner's reasoning appears to be that if one modifies Kijima with Murade to include the depression, Kijima would also necessarily be modified to have the buffer space.

However, the depression and the buffer space in Murade are not related as the Examiner appears to assert. For example, Fig. 4 of Murade (reproduced below) does not include the alleged depression, but still includes the alleged buffer space.

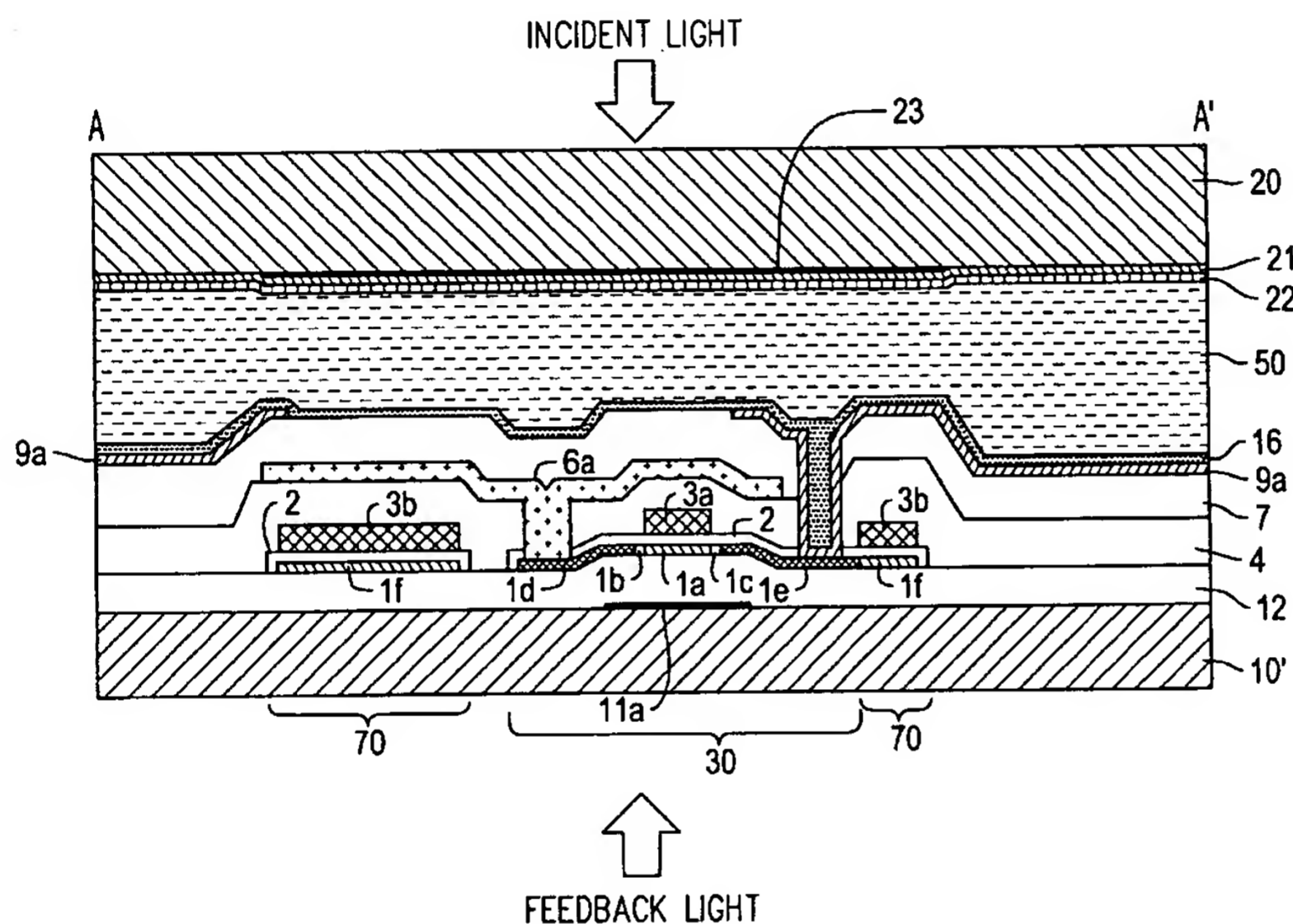


Fig. 4
PRIOR ART

Since Fig. 4 has the alleged buffer space, but no depression, these two features appear to be independent of one another. That is, the buffer space does not appear to be the result of the depression and, even if Kijima were modified with the Murade depression, there is no evidence that this would also necessitate the alleged buffer space. Accordingly, since the depression and the buffer space features are independent, even if the Examiner's motivation for providing the Murade depression was proper, the Examiner would still have to identify motivation for the

buffer space. As noted above, the Examiner has failed to provide any specific motivation for modifying Kijima to include the buffer space. Accordingly, the Examiner's motivation is deficient and the Examiner has failed to establish a case of *prima facie* obviousness. Even if Kijima were modified with the Murade depression, it would not be a depression that creates a buffer space as claimed.

The Examiner's combination is also deficient at least because the Murade depression is located in a different position than the claimed depression. The claimed depression is in an area corresponding to a **non-display region**. The Murade depression is in a **display area**. The location of the Murade depression in a display area is clear throughout the specification.

Murade is concerned with the display region generally and, in particular, reducing the steps resulting from the presence of wiring and elements in the image display area and the sealed area (*see* Abstract). Thus, most of Murade's teachings concern the display area. Several passages make it clear that the alleged depression is located in a display region. For example, Murade describes Figs. 1-4 as showing the configuration of the apparatus in the image display area (column 13, lines 48-51). Thus, Fig. 3, which the Examiner cites as showing the alleged depression and buffer region, illustrates the configuration of the image display area. Also, the application specifically teaches that the concave recess (the Examiner's alleged depression) is part of the display region (*see*, for example, column 7, lines 45-49). Finally, Murade specifically describes the TFT 30 as being part of the display area (*see* column 13, lines 62-67). With

reference to Fig. 3, the TFT 30 is in the same region as the alleged depression. Therefore, since the TFT 30 is in the image display region, the depression must also be in the image display region. Since the alleged Murade depression is in a display region, not a non-display region as claimed, even if it were appropriate to modify Kijima with Murade, the combination would still be deficient with regard to the claimed invention.

In view of the foregoing remarks, Applicant respectfully submits that claim 1 is allowable over the combined teachings and suggestions of Kijima and Murade.

Claims 5, 10 and 21 depend from claim 1 and are, therefore, allowable at least because of their dependency.

B) Claims 6-9

Claims 6-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kijima in view of Murade and further in view of Miyazaki (U.S. Patent No. 5,978,061). Applicant respectfully traverses this rejection.

Claims 6-9 depend from claim 1. Miyazaki does not correct the above-noted deficiencies of Kijima and Murade with respect to the depression of claim 1. Therefore, even if it were appropriate to modify Kijima and Murade with Miyazaki as asserted by the Examiner, the combination would still be deficient with regard to claim 1. Accordingly, since the combination of Kijima, Murade and Miyazaki is deficient with regard to claim 1, the combination is also deficient with regard to dependent claims 6-9.

At least claim 8 is also allowable over the combination of Kijima, Murade and Miyazaki for other reasons. The Examiner continues to cite Kijima's column 16, lines 17-47, and column 5, lines 7-29, as motivation for providing a depression with the claimed characteristics. As explained in previous responses, the Examiner's motivation is deficient. The only motivation for the claimed depression height is in the present application, and the Examiner's assertions are based on improper hindsight reasoning.

New Claims

Claims 22 and 23 are newly added herewith. Claim 22 is allowable at least for reasons similar to claim 1. Claim 23 depends from claim 22 and is allowable at least because of its dependency.

Conclusion

In view of the preceding amendments and remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephonic interview, he is kindly requested to contact the undersigned at the local telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111
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The USPTO is directed and authorized to charge all required fees (except the Issue/Publication Fees) to our Deposit Account No. 19-4880. Please also credit any over-payments to said Deposit Account.

Respectfully submitted,



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